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4-amino-3-hydroxymethylphenol, 4-amino-2-methylphenol, 4-amino-2-hydroxymethylphenol, 4-amino-2-methoxymethylphenol, 4-amino-2-aminomethylphenol, 4-amino-2-(β -hydroxyethylaminomethyl)phenol, 4-amino-2-fluorophenol, and an addition salt thereof with an acid.

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49. A composition according to Claim 26, wherein said meta-aminophenol derivative of formula (II) is chosen from 5-amino-2-methoxyphenol, 5-amino-2-(β -hydroxyethyloxy)phenol, 5-amino-2-methylphenol, 5-N-(β -hydroxyethyl)amino-2-methylphenol, 5-N-(β -hydroxyethyl)amino-4-methoxy-2-methylphenol, 5-amino-4-methoxy-2-methylphenol, 5-amino-4-chloro-2-methylphenol, 5-amino-2,4-dimethoxyphenol, 5-(γ -hydroxypropylamino)-2-methylphenol, 3-amino-2-chloro-6-methylphenol, 3-amino-6-chlorophenol, 3-(β -aminoethyl)amino-6-chlorophenol, and an addition salt thereof with an acid.

REMARKS

The Office Action dated January 4, 2001, has been received and its contents carefully considered. The rejections contained therein and the amendments presented herein are addressed, in turn, below.

I. Status of Claims

Claims 36, 39, 41 and 49 have been amended in response to the Examiner's objections, as discussed below. Claim 36 has also been amended in response to the Examiner's rejection under 35 U.S.C §112, as discussed below. The scope of the amended claims is not believed to be, nor intended to be, any more narrow than the scope of those claims as originally presented.

Claims 26 to 60 are now pending.

II. Formal Objections

Claims 36, 39, 41 and 49 were objected to for typographical errors. Applicants thank the Examiner for identifying these obvious errors, which are corrected herein.

III. Rejections under 35 U.S.C. §112

Claim 36 has been rejected under 35 U.S.C. §112, second paragraph, as indefinite for improper antecedent basis for the term "said para-phenylenediamine of formula (III)". The antecedent basis has been corrected herein. No new matter has been added.

IV. Rejections under 35 U.S.C. §103

Claims 26 to 60 were rejected under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 4,025,301 to Lang (Lang) in view of U.S. Patent No. 4,588,410 to Konrad (Konrad). This rejection is respectfully traversed for at least the following reasons.

The composition of the present invention, as recited in, for example, claim 26, comprises at least the following three components: (a) at least one oxidation base, (b) as a direct dye, at least one 3-aminopyridine derivative chosen from the compounds of formula (I), and (c) at least one coupler chosen from a meta-aminophenol derivative of formula (II).

According to the Examiner, Lang teaches a composition for dyeing hair comprising (a) an oxidation base, including p-aminophenol; (b) a cationic dye within the scope of formula (I) of the present invention; and (c) m-aminophenol as a coupler. The Examiner acknowledges that Lang fails to teach or suggest the claimed coupler, which is identified as a meta-aminophenol derivative of formula (II) in the present invention.

See Office Action, page 3, lines 15-16.

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The Examiner relies on Konrad to overcome the deficiency of Lang to teach or suggest all the claimed elements of the present invention. The Examiner cites Konrad formula (I) (hereinafter "Konrad I") as being within the scope of the claimed meta-aminophenol derivative of formula (II) of the present invention. The Examiner cites Konrad for teaching that the genus of Konrad I is taught to provide improvements over m-aminophenol couplers. For the sake of clarity, since Konrad, the secondary reference, uses the term "developer substances" for the species described in Lang, the primary reference, as "oxidation bases," the term "oxidation base" will be used herein to refer to both.

Applicants note that, at most, Konrad teaches the substitution of Konrad I for m-aminophenols for use with oxidation bases such as p-aminophenol in the particular hair coloring system of Konrad. See, for example, col. 2, ln 65 - col. 3, ln. 5. However, Applicants respectfully assert that Konrad does not teach or suggest the substitution of Konrad I for m-aminophenols for use in a composition comprising both an oxidation base and a direct dye. Moreover, Konrad lacks any teaching or suggestion for using Konrad I with the direct dye of formula I of the present invention.

Applicants respectfully assert that Konrad's failure to provide any teaching or suggestion with respect to compositions comprising both an oxidation base and a direct dye, let alone a direct dye of formula I of the present invention, obviates the formation of a *prima facie* case of obviousness against the present invention based on combination with Lang. Since the hair dyeing systems of Lang and Konrad are different, one skilled in the art would not be motivated to make the suggested combination.

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Moreover, since the dynamics and kinetics of the suggested combination are not obvious from the cited references, and since the hair dyeing systems are different, there would be no reasonable expectation of success based on Konrad's disclosure that Konrad I is suitable for use in any chemical compositions comprising both an oxidation base and a direct dye, let alone a direct dye of formula I of the present invention.

Accordingly, for at least the reasons that there is no reasonable expectation of success and no motivation to make the suggested combination, Applicants respectfully assert that a *prima facie* case of obviousness has not been established. Reconsideration and withdrawal of the rejection is respectfully solicited.

V. Provisional Double Patenting Rejections

The provisional obviousness-type double patenting rejection of claims 26-60 over co-pending Application No. 09/424,116 in view of U.S. patent No. 4,976,742 to Rose (Rose) is noted. Applicants traverse this rejection, for at least the reason that the Examiner has not established a *prima facie* case of obviousness for the suggested combination.

Specifically, given the absence of any teaching in either co-pending Application No. 09/424,116 or Rose that the claimed combination of all of (a) at least one oxidation base, (b) as a direct dye, at least one 3-aminopyridine derivative chosen from the compounds of formula (I), and (c) at least one coupler chosen from a meta-aminophenol derivative of formula (II) would be expected to yield a composition suitable for the oxidation dyeing of keratin fibers, it is respectfully asserted that the references do not

contain and have not been cited for any reasonable expectation of success for the claimed composition.

Accordingly, for at least the reasons that there is no reasonable expectation of success, Applicants respectfully assert that a *prima facie* case of obviousness has not been established. Reconsideration and withdrawal of the rejection is respectfully solicited.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully request the reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: March 28, 2001

By: _____
Mark J. Feldstein
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Enclosure: ~~Appendix of Claim Amendments~~

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Appendix of Claim Amendments

36. A composition according to Claim 3334, wherein said para-phenylenediamine of formula (III) is chosen from para-phenylenediamine, para-tolylenediamine, 2-chloro-para-phenylenediamine, 2,3-dimethyl-para-phenylenediamine, 2,6-dimethyl-para-phenylenediamine, 2,6-diethyl-para-phenylenediamine, 2,5-dimethyl-para-phenylenediamine, N,N-dimethyl-para-phenylenediamine, N,N-diethyl-para-phenylenediamine, N,N-dipropyl-para-phenylenediamine, 4-amino-N,N-diethyl-3-methylaniline, N,N-bis(β -hydroxyethyl)-para-phenylenediamine, 4-N,N-bis(β -hydroxyethyl)amino-2-methylaniline, 4-N,N-bis(β -hydroxyethyl)amino-2-chloroaniline, 2-b-hydroxyethyl-para-phenylenediamine, 2-fluoro-para-phenylenediamine, 2-isopropyl-paraphenylenediamine, N-(β -hydroxypropyl)-para-phenylenediamine, 2-hydroxymethyl-paraphenylenediamine, N,N-dimethyl-3-methyl-para-phenylenediamine, N-ethyl-N-(β -hydroxyethyl)-para-phenylenediamine, N-(β , γ -dihydroxypropyl)-para-phenylenediamine, N-(4'-aminophenyl)-para-phenylenediamine, N-phenyl-para-phenylenediamine, 2-b-hydroxyethyloxy-para-phenylenediamine, 2-b-acetylaminoethyloxy-para-phenylenediamine,

N-(β -methoxyethyl)-para-phenylenediamine, and addition salts thereof with an acid.

39. A composition according to Claim 37, wherein said double base of formula (IV) is chosen from N,N'-bis(β -hydroxyethyl)-N,N'-bis(4'-aminophenyl)-1,3-diaminopropanol, N,N'-bis(β -hydroxyethyl)-N,N'-bis(4'-aminophenyl)ethylenediamine, N,N'-bis(4-aminophenyl)tetramethylenediamine, N,N'-bis(β -hydroxyethyl)-N,N'-bis(4-aminophenyl)



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tetramethylenediamine, N,N'-bis(4-methylaminophenyl)tetramethylenediamine, N,N'-bis(ethyl)-N,N'-bis(4'-amino-3'-methylphenyl)ethylenediamine, 1,8-bis(2,5-diaminophenoxy)-3,5-dioxaoctane, and an addition salt thereof with an acid.

41. A composition according to Claim 40, wherein said para-aminophenol of formula (V) is chosen from para-aminophenol, 4-amino-3-methylphenol, 4-amino-3-fluorophenol, 4-amino-3-hydroxymethylphenol, 4-amino-2-methylphenol, 4-amino-2-hydroxymethylphenol, 4-amino-2-methoxymethylphenol, 4-amino-2-aminomethylphenol, 4-amino-2-(β -hydroxyethylaminomethyl)phenol, 4-amino-2-fluorophenol, and an addition salt thereof with an acid.

49. A composition according to Claim 26, wherein said meta-aminophenol derivative of formula (II) is chosen from 5-amino-2-methoxyphenol, 5-amino-2-(β -hydroxyethyloxy)phenol, 5-amino-2-methylphenol, 5-N-(β -hydroxyethyl)amino-2-methylphenol, 5-N-(β -hydroxyethyl)amino-4-methoxy-2-methylphenol, 5-amino-4-methoxy-2-methylphenol, 5-amino-4-chloro-2-methylphenol, 5-amino-2,4-dimethoxyphenol, 5-(γ -hydroxypropylamino)-2-methylphenol, 3-amino-2-chloro-6-methylphenol, 3-amino-6-chlorophenol, 3-(β -aminoethyl)amino-6-chlorophenol, and an addition salt thereof with an acid.

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